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| 09/833,465      | 04/11/2001  | Curtis Lee Carrender | E-1800              | 3312             |

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EXAMINER

SHIMIZU, MATSUICHIRO

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2635

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/833,465

Applicant(s)

CARRENDER ET AL.

Examiner

Matsuichiro Shimizu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Response to Amendment***

The examiner acknowledges currently amended claims 1-4, 8-9, 16, 22 and 30.

***Response to Arguments***

Applicant's arguments with respect to claims 3, 8-35 have been considered but are moot in view of the new grounds of rejection.

Applicant's arguments filed on 5/12/2004 have been fully considered and examiners response is provided as follows:

Regarding applicant's argument (lines 24-28, page 9), the examiner maintains that Heinrich teaches a receiver circuit configured to receive a radio-frequency interrogation signal (col. 3, lines 4-45, col. 7, lines 26-57; RFID device is presented to reader 910 or interrogator, and then RFID device (Fig. 1, RFID tag 120 and external circuit 130) receives interrogation signal) and to return a tag ID (Fig. 9, col. 7, lines 26-57, return to reader 910), and a control circuit further configured to receive a disable signal and to process the disable signal to render the RFID device inoperable (col. 7, lines 26-57, disable signal to the external electronic circuitry 130 or 970); and rendering the RFID device permanently inoperable (Fig. 9, col. 7, lines 26-57, disable the tag upon sale and tag device will not respond to reader passing through the zone of reader). That is, claimed limitation associated with word "concurrently" or "simultaneously" is broader than the limitation of two processing events starting at a specified time upon receiving a signal. Furthermore, word "concurrently" or "simultaneously" is not disclosed in the applicant specification.

***Claim Rejections – 35 USC § 112***

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1,8,16 and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Word "concurrently" or "simultaneously" is not disclosed in the applicant specification.

***Claim Rejections – 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich et al. (5,874,902) in view of Valiulis (6,317,028).

Regarding claim 1, Heinrich teaches a radio frequency identification (RFID) device (Fig. 1, RFID device comprising RFID tag 120 and external circuit 130), comprising: interrogator circuit and a receiver circuit configured to receive a radio-frequency interrogation signal (col. 3, lines 4-45, col. 7, lines 26-57; return to reader 910 or interrogator, RF tag 120 receives interrogation signal) and to return a tag ID (Fig. 9, col. 7, lines 26-57, return to reader 910), and a control circuit further configured to receive a disable signal and to process the disable signal to render the RFID device inoperable (col. 7, lines 26-57, disable signal to the external electronic circuitry 130 or 970); and rendering the RFID device permanently inoperable (Fig. 9, col. 7, lines 26-57, disable RFID device upon sale and RFID device will not respond to reader passing through the zone of reader). But Heinrich does not teach a modulated radio frequency signal by continuous-wave backscatter.

However, Valiulis teaches, in the art of RFID technology, returning a modulated radio frequency signal by continuous-wave backscatter (Fig. 7, col. 14, lines 50-63, RFID device 65 communicates with the interrogator via backscattering) for purpose of tracking manufactured product number. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include returning a modulated radio frequency signal by continuous-wave backscatter in the device of Heinrich because Heinrich suggest returning a tag ID and Valiulis teaches returning a modulated radio frequency signal by continuous-wave backscatter for purpose of tracking manufactured product number.

Regarding claim 2, Valiulis teaches the device of claim 1, wherein the receiver circuit is configured to provide passive continuous-wave backscattering of the interrogation signal and to receive operating power from the interrogation signal and the disable signal (Fig. 7, col. 14, lines 50–63, interrogator energizes the RFID, and RFID device 65 communicates with the interrogator via backscattering).

Regarding claim 4, Valiulis teaches the device of claim 1, wherein the control circuit is configured to modify the backscattering characteristics of the antenna circuit in response to the disable signal (Fig. 7, col. 14, lines 50–63, interrogator energizes the RFID, and RFID device 65 modifies the continuous wave and backscatters the information or data associated with disable signal to the interrogator).

Regarding claim 5, Heinrich teaches the device of claim 1, wherein the receiver circuit comprises a memory circuit, and wherein the control circuit is configured to permanently alter the memory circuit in response to the disable signal (Fig. 9, col. 7, lines 26–57, disable the tag upon sale and tag device will not respond to reader passing through the zone of reader. That is, memory circuit associated with the tag is inoperable).

Regarding claim 6, Heinrich teaches the device of claim 1, wherein the control circuit is configured to fuse a fusible link in response to the enable signal (col. 9, lines 20–40, operable state). But Heinrich does not teach the control circuit is configured to fuse a fusible link in response to the disable signal.

However, one of ordinary skill in the art recognizes RF power associated with enable signal and disable signal is same to fuse the fusible link. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the control circuit is configured to fuse a fusible link in response to the disable

signal in the device of Heinrich because Heinrich suggest the control circuit is configured to fuse a fusible link in response to the enable signal and one ordinary skill in the art recognizes the control circuit is configured to fuse a fusible link in response to the disable signal as a complimentary logic.

Regarding claim 7, Heinrich teaches the device of claim 1, wherein the control circuit is configured to irreversibly alter the operating characteristics of the receiver circuit in response to the disable signal (Fig. 9, col. 7, lines 26–57, disable the tag upon sale and tag device will not respond to reader passing through the zone of reader. That is, operation associated with the tag is irreversible or inoperable ).

Claims 3, 22–23 and 25–28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich in view of Valiulis as applied to claim 1 above, and further in view of Ichiyoshi (4,914,735).

Regarding claim 3, Heinrich teaches the device of claim 1, wherein the receiver circuit comprises an antenna circuit, and wherein the control circuit is configured to render the antenna circuit inoperable in response to the disable signal (Fig. 9, col. 7, lines 26–57, disable the tag upon sale and tag device will not respond to reader passing through the zone of reader. That is, antenna of the tag is inoperable).

But Heinrich does not teach the antenna circuit comprises a first antenna circuit for receiving the signal, and wherein the control circuit is configured to receive the signal on a second antenna of the antenna circuit.

However, Ichiyoshi teaches, in the art of receiver system, the antenna circuit comprises a first antenna circuit for receiving the signal, and wherein the control circuit is configured to receive the signal on a second antenna of the antenna circuit for the purpose of providing frequency diversity. Therefore, it would have been

obvious to a person skilled in the art at the time the invention was made to include the antenna circuit comprises a first antenna circuit for receiving the signal, and wherein the control circuit is configured to receive the signal on a second antenna of the antenna circuit in the device of Heinrich in view of Valiulis because Heinrich in view of Valiulis suggests permanent memory associated with appliance and Ichiyoshi teaches the antenna circuit comprises a first antenna circuit for receiving the signal, and wherein the control circuit is configured to receive the signal on a second antenna of the antenna circuit for the purpose of providing frequency diversity.

All subject matters in claims 22-23 and 25-28 are disclosed in claims 1-5, and therefore rejection of the subject matters expressed in claims 22-23 and 25-28 are met by references and associated arguments applied to rejection of claims 1-5.

Claims 13, are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich in view of Valiulis and Ichiyoshi as applied to claims 12 above, and further in view of Fockens (6,181,248).

Regarding claim 13, Heinrich in view of Valiulis and Ichiyoshi does not teach the system of claims 12, wherein the control circuit is configured to erase the memory in response to the disable signal.

However, Fockens teaches, in the art of memory control system, the control circuit is configured to erase the memory (col. 3, lines 36-53, erase memory 4 via changing the resonant frequency) in response to the disable signal for the purpose of providing disable operation to the label. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the control circuit is configured to erase the memory in response to the disable signal in the device of Heinrich in view of Valiulis and Ichiyoshi because Heinrich in view of Valiulis



and Ichiyoshi suggests permanent memory associated with appliance and Fockens teaches the control circuit is configured to erase the memory in response to the disable signal for the purpose of providing disable operation to the label.

Claims 8, 9-12, 14-16, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich in view of Valiulis and Ichiyoshi (4,914,735).

All subject matters except a modulated radio frequency signal by continuous-wave backscatter; and the antenna circuit comprises a first antenna circuit for receiving the signal, and wherein the control circuit is configured to receive the signal on a second antenna of the antenna circuit in claim 8 are disclosed in claim 1, and therefore rejection of the subject matters expressed in claim 8 are met by references and associated arguments applied to rejection of claim 1. However, Valiulis teaches, in the art of RFID technology, returning a modulated radio frequency signal by continuous-wave backscatter (Fig. 7, col. 14, lines 50-63, RFID device 65 communicates with the interrogator via backscattering) for purpose of tracking manufactured product number. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include returning a modulated radio frequency signal by continuous-wave backscatter in the device of Heinrich because Heinrich suggest returning a tag ID and Valiulis teaches returning a modulated radio frequency signal by continuous-wave backscatter for purpose of tracking manufactured product number. Likewise, Ichiyoshi teaches, in the art of receiver system, the antenna circuit comprises a first antenna circuit for receiving the signal, and wherein the control circuit is configured to receive the signal on a second antenna of the antenna circuit for the purpose of providing frequency diversity. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the

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antenna circuit comprises a first antenna circuit for receiving the signal, and wherein the control circuit is configured to receive the signal on a second antenna of the antenna circuit in the device of Heinrich because Heinrich suggests permanent memory associated with appliance and Ichiyoshi teaches the antenna circuit comprises a first antenna circuit for receiving the signal, and wherein the control circuit is configured to receive the signal on a second antenna of the antenna circuit for the purpose of providing frequency diversity. Therefore rejection of the subject matters expressed in claims 8 are met by references and associated arguments applied to rejection of claim 1 and argument provided in previous paragraphs.

All subject matters in claims 9-12 and 14-15 are disclosed in claims 2-3 and 5-8, and therefore rejection of the subject matters expressed in claims 9-12 and 14-15 are met by references and associated arguments applied to rejection of claims 2-3 and 5-8.

All subject matters in claims 16, 19 and 21 are disclosed in claims 8 and 14-15, and therefore rejection of the subject matters expressed in claims 16, 19 and 21 are met by references and associated arguments applied to rejection of claims 8 and 14-15.

Claims 17-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich in view of Valiulis and Ichiyoshi as applied to claim 16 above, and further in view of Fockens (6,181,248).

Regarding claims 17-18 and 20, Heinrich in view of Valiulis and Ichiyoshi does not teach the system of claims 16, wherein the control circuit is configured to erase the memory in response to the disable signal.

However, Fockens teaches, in the art of memory control system, the control circuit is configured to erase the memory (col. 3, lines 36–53, erase memory 4 via changing the resonant frequency) in response to the disable signal for the purpose of providing disable operation to the label. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the control circuit is configured to erase the memory in response to the disable signal in the device of Heinrich in view of Valiulis and Ichiyoshi because Heinrich in view of Valiulis and Ichiyoshi suggests permanent memory associated with appliance and Fockens teaches the control circuit is configured to erase the memory in response to the disable signal for the purpose of providing disable operation to the label.

Claims 24 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich in view of Valiulis and Ichiyoshi as applied to claims 22–23 above, and further in view of Crye et al. (6,412,207).

Regarding claims 24 and 29, Valiulis teaches the device of claim 22–23, wherein the receiver circuit is configured to return radio frequency signals (Figs. 7–8, backscattering RF signal) in response to the interrogation signal. But Heinrich in view of Valiulis and Ichiyoshi does not teach data regarding the operational status of the object and the receiver circuit is battery-powered.

However, Crye teaches, in the art of RFID control, data regarding the operational status of the object (col. 14, lines 22–45, external data acquisition system 360 associated with the object or weapon) and the receiver circuit is battery-powered (Crye–col. 9, lines 17–25, battery) for the purpose of providing safe and reliable operation. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include data regarding the operational status of the

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object associated with the weapon control and the receiver circuit is battery-powered in the device of Heinrich in view of Valiulis and Ichiyoshi because Heinrich in view of Valiulis and Ichiyoshi suggest RFID response associated with appliance and Crye teaches data regarding the operational status of the object and the receiver circuit is battery-powered for the purpose of providing safe and reliable operation.

Claims 30–35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich in view of Valiulis and Ichiyoshi as applied to claims 1–2 and 8 above, and further in view of Crye et al. (6,412,207).

All subject matters in claims except the weapon 30–32 are disclosed in claims 1–2 and 8. However, Crye teaches, in the art of RFID control, the weapon control (col. 9, lines 29–43, remote firearm 10 control) for the purpose of providing safe operation. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the weapon control in the device of Heinrich in view of Valiulis and Ichiyoshi because Heinrich in view of Valiulis and Ichiyoshi suggest RFID associated with appliance and Crye teaches the weapon control for the purpose of providing safe operation. Therefore rejection of the subject matters expressed in claims 30–32 are met by references and associated arguments applied to rejection of claims 1–2 and 8 and argument provided in previous paragraph.

Regarding claim 33, Crye teaches the system of claim 31, wherein the RFID device is configured to enable operation (of the weapon in response to control signals (col. 9, lines 29–43, enabling firearm 10).

Regarding claim 34, Valiulis in view of Crye teaches the system of claim 31, wherein the RFID device is configured to utilize the modulated continuous-wave backscattered radio

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frequency signals (Valiulis-Figs. 7-8, backscattering signal) to transmit data regarding operational status of the weapon (Cyre-col. 14, lines 22-45, external data acquisition system 360).

Regarding claim 35, Valiulis in view of Cyre teaches the system of claim 31, wherein the RFID device is battery powered (Cyre-col. 9, lines 17-25, battery) and is configured to transmit signals to the interrogator (Valiulis-Figs. 7-8, backscattering signal to interrogator).

### *Conclusion*

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final act

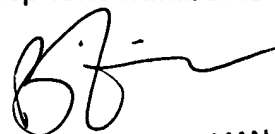
### *Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matsuichiro Shimizu whose telephone number is (703) 306-5841. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik, can be reached on (703-305-4704). The fax phone number for the organization where this application or proceeding is assigned is (703-305-3988).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-8576).

Matsuichiro Shimizu

July 2, 2004



BRIAN ZIMMERMAN  
PRIMARY EXAMINER